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**NOV 20 2006**

**PATENT**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:	)	Examiner: Ramsey Refai
Blair, et al.	)	
	)	Art Unit: 2154
Serial No.: 09/992,666	)	
	)	
Filed: November 19, 2001	)	
	)	
For: METHOD AND SYSTEM FOR	)	
GATHERING DATA USING AUTOMATIC	)	
APPLIANCE FAILOVER	)	
	)	
Date of Final Office Action: 7-26-2006	)	Attorney Docket No.:
	)	10013014-1
Notice of Appeal Filed: 9-18-2006	)	
	)	
	)	

November 20, 2006

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief is timely provided to support the Notice of Appeal filed September 18, 2006.

**CERTIFICATE OF FACSIMILE**

Date of Deposit: 11/20 2006

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HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. 10013014-1

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Blair et al.

Confirmation No.: 8495

Application No.: 09/992,666

Examiner: Ramsey Refal

Filing Date: 11/19/01

Group Art Unit: 2154

Title: METHOD AND SYSTEM FOR GATHERING DATA USING AUTOMATIC APPLIANCE FAILOVER

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**TRANSMITTAL OF APPEAL BRIEF**

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 09/18/06

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

☐ 1st Month  
\$120

☐ 2nd Month  
\$450

☐ 3rd Month  
\$1020

☐ 4th Month  
\$1590

☐ The extension fee has already been filed in this application.

☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$ 500 . At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

☒ A duplicate copy of this transmittal letter is enclosed.

☐ I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:  
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Date of facsimile: 11/20/06

Typed Name: Doreen Zabinski

Signature: Doreen Zabinski

Respectfully submitted,

Blair et al.

By Doreen Zabinski (for Petar Kraguljac)

Petar Kraguljac

Attorney/Agent for Applicant(s)

Reg No.: 38,520

Date: 11/20/06

Telephone: (216) 348-5843

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**1. Real Party in Interest:**

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, USA.

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**2. Related Appeals and Interferences**

There are no other prior and/or pending appeals, interferences, or judicial proceedings that are related to, directly affect, or that will be directly affected by or have a bearing on the Board's decision.

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**3. Status of Claims**

Claims 1-11 and 20-23 are pending in the application.

Claims 1-11 and 20-23 stand rejected. All rejections are appealed.

Claims 12-19 were cancelled.

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**4. Status of Amendments**

No amendments were filed subsequent to the Final Office Action.

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## 5. Summary of Claimed Subject Matter

Claims 1, 6 and 20 are in independent form. In general, the claimed subject is directed to a method and system for gathering data using automatic appliance failover. (Title). For example, Figure 1 illustrates one embodiment where a central controller 20 communicates with remote appliances 30a, 30b, 30c, 30d through a network 16, and the appliances can communicate with remote devices 34 (e.g. printers) through a network 36. (See specification, paragraphs [0025] and [0026]).

### Independent Claim 1

Claim 1 is directed to a method for configuring data communication paths between a central controller and a plurality of printing devices via a plurality of appliances. (See, specification, Figure 2). Claim 1 recites ensuring one or more appliances of the plurality of appliances are active where an appliance is a computer remote from the central controller configured to collect diagnostic data from one or more of the plurality of printing devices and to transmit the diagnostic data to the central controller. (See, specification, paragraphs [0024], [0027], [0028] and [0035]).

Claim 1 further recites, for each of the printing devices, determining communication capabilities with the one or more appliances to determine communication paths between the plurality of printing devices and the one or more appliances. (See, specification, paragraphs [0028] and [0029]). Claim 1 also recites transmitting signals indicative of the communication capabilities to the central controller. (See, specification, paragraph [0030]). Finally, claim 1 recites mapping respective communication paths between the central controller and the printing devices via the one or more appliances as a function of the communication capabilities to obtain an automatic appliance failover to allow diagnostic data to be collected from a selected printing device by way of multiple appliances. (See, specification, paragraphs [0030], [0032] and Figure 2, block 106).

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### Independent Claim 6

Claim 6 is directed to a method for gathering diagnostic data, which are associated with a plurality of printing devices, by a central processing unit via a plurality of intermediate collectors that are connected to one or more of the plurality of printing devices through a network, where an intermediate collector is a computer remote from the control processing unit configured to collect diagnostic data from a selected printing device. (See, specification, Figure 2). Claim 6 recites determining which of the plurality of intermediate collectors are capable of communicating with one or more of the plurality of printing devices to obtain a communication map to allow an automatic intermediate collector failover to occur if an intermediate collector fails to operate. (See, specification, paragraphs [0028], [0029], [0030] and Figure 2, blocks 102, 104 and 106).

Claim 6 further recites receiving a notification signal within the central processing unit that one of the intermediate collectors is available. (See, specification, paragraph [0032]). Claim 6 also recites identifying one of the printing devices for which the diagnostic data is desired. (See, specification, paragraph [0032]). Next, claim 6 recites determining whether the identified printing device is capable of communicating with the available intermediate collector. (See, specification, paragraph [0032]).

Continuing, claim 6 recites if the identified printing device is capable of communicating with the available intermediate collector, transmitting a request signal from the central processing unit to the available intermediate collector requesting the diagnostic data for the identified printing device. (See, specification, paragraph [0036] and Figure 2, block 126). Finally, claim 6 recites transmitting signals indicative of the diagnostic data from the identified printing device to the central processing unit via the available intermediate collector. (See, specification, paragraph [0036] and Figure 2, block 128).



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### Independent Claim 20

Claim 20 is directed to a system comprising a plurality of printing devices (Figure 1, reference designator (34)) and a plurality of appliances where an appliance is a computer configured to collect diagnostic data from one or more of the plurality of printing devices (Figure 1, reference designator (30)). (See, specification paragraph [0025]). Claim 20 further recites a communication network configured to provide a plurality of communication paths between components connected to the communication network. (See, Figure 1, reference designator (36) and specification, paragraph [0025]).

Claim 20 also recites the plurality of printing devices and the plurality of appliances being connected to the communication network where communication paths are provided between one or more of the plurality of printing devices and one or more of the plurality of appliances. (See, specification, paragraph [0025]). Claim 20 further recites a controller remote from the appliances configured to communicate with the plurality of appliances and being configured to generate a map of the communication paths between the printing devices and the appliances based on signals received from the plurality of appliances. (See, Figure 1, reference designator (14) and specification, paragraph [0029]).

Claim 20 recites the controller being configured to receive, from a first appliance from the plurality of appliances, diagnostic data relating to a selected printing device. (See, specification paragraphs [0034] and [0035]). Finally, claim 20 recites the controller being configured to perform an automatic appliance failover to a second appliance using the map of the communication paths if the first appliance is disabled in order to receive the diagnostic data relating to the selected printing device. (See, specification paragraphs [0034] and [0035]).

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**6. Grounds of Rejection to be Reviewed on Appeal**

The following grounds of rejection are to be reviewed on appeal:

I. Whether claims 1-11 and 20-23 are unpatentable under 35 U.S.C. 103(a) over Mercier et al. (US PG PUB 2003/0005119) in view of Carney et al. (US Pat. No. 6,615,161).

II. Whether the level of ordinary skill in the art has been ascertained under MPEP §2141.03.

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## 7. Argument

### I. Whether Claims 1-11 and 20-23 are unpatentable under 35 U.S.C. 103(a) over Mercier et al. (US PG PUB 2003/0005119) in view of Carney et al. (US Pat. No. 6,615,161)

#### Independent claim 1

Claim 1 is directed to a method for configuring data communication paths between a central controller and a plurality of printing devices via a plurality of appliances. Figure 1 of the present application shows one embodiment where a central controller 20 communicates with remote appliances 30a, 30b, 30c, 30d through a network 16, and the appliances can communicate with remote devices 34 (e.g. printers) through a network 36. Claim 1 recites that an appliance is a computer remote from the central controller configured to collect diagnostic data from one or more printing devices and that the method includes mapping respective communication paths between the central controller and the printing devices to obtain an automatic appliance failover to allow diagnostic data to be collected from a selected printing device by way of multiple appliances.

Mercier teaches an apparatus that provides a user interface that allows operators to use pre-created policies for criteria to select data paths that meet organizations uptime and performance requirements. (Mercier, Abstract). The apparatus uses pathing methodologies to select the optimal data path from the candidates by rating storage area network (SAN) state, uptime, performance, and other key factors. (Mercier, Abstract). An operator, rather than a highly trained storage and switching expert, is able to perform automated provisioning which results in the creation of a data path between a server and data. (Mercier, paragraph [0009]).

Significantly, no portion of Mercier has been cited which specifically refers to disclosure of I/O adapter failure. Further, Mercier does not teach, suggest or make obvious mapping respective communication paths between the central controller and devices via the

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one or more appliances as a function of the communication capabilities to obtain an automatic appliance failover to allow diagnostic data to be collected from a selected device by way of multiple appliances. The Final Office Action cites paragraph [0014] and [0015] of Mercier as teaching this claim limitation. (Final Office Action, page 3).

Contrary to the assertion in the Final Office Action, the portion of Mercier relied upon teaches that a data path may contain multiple channels or threads. (Mercier, paragraph [0014]). The data path selection is based upon policies such as, number of threads, number of separate storage switch fabrics that the threads must go through, level of security desired and actions to take based upon security problems detected, performance characteristics and cost characteristics desired. (Mercier, paragraph [0014]).

Pathing methodologies within the DataPath Engine use discovered information about the SAN such as device uptime information, performance information, cost information, and load. (Mercier, paragraph [0015]). Mercier does not teach, suggest or make obvious mapping respective communication paths between the central controller and devices via the one or more appliances as a function of the communication capabilities to obtain an automatic appliance failover to allow diagnostic data to be collected from a selected device by way of multiple appliances.

Carney does not cure the shortcomings of Mercier. Carney shows in Figure 1 a computer station 106 that is connected to a peripheral device 102 (e.g. a printer). The computer station 106 can collect status information using a single in-memory management application or it can wait and receive notification from the peripheral device (see column 1, lines 45-54). Carney, however, does not discuss failover of the management application.

Furthermore, there is no teaching or suggestion of a plurality of management applications that can communicate with a central controller or being configured to obtain an automatic appliance failover to allow diagnostic data to be collected from a selected printing device by way of multiple appliances as recited in claim 1. As such, the actions performed

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with respect to the single in-memory management application of Carney are not the same as the actions performed with respect to the plurality of appliances as recited in claim 1. Carney thus fails to cure the shortcomings of Mercier and fails to support a proper obviousness rejection

Therefore, combining Mercier with Carney still fails to teach or suggest the recited features of claim 1. The references fail to establish a prima facie obviousness rejection and the rejection should be reversed. Claim 1, thus, patentably distinguishes over the references of record and is in condition for allowance. Accordingly, dependent claims 2-5 also patentably distinguish over the references and are in condition for allowance.

Independent claim 6

Claim 6 recites determining which of the plurality of intermediate collectors are capable of communicating with one or more of the plurality of printing devices to obtain a communication map to allow an automatic intermediate collector failover to occur if an intermediate collector fails to operate. Claim 6 further recites that the intermediate collectors are computer remotes from a central processing unit.

As explained previously, Mercier teaches an apparatus that provides a user interface that allows operators to use pre-created policies for criteria to select data paths that meet organizations uptime and performance requirements. (Mercier, Abstract). Mercier does not disclose I/O adapter failure.

The Final Office Action offers the conclusory statement "Claims 6-11 and 20-23 contain similar limitations as claims 1-5 above, therefore are rejected under the same rationale." (Final Office Action, page 4). Thus, it is not readily apparent what portions of Mercier have been relied upon to specifically support the rejection of independent claim 6. Furthermore, since claim 6 recites different limitations from claim 1, the rationale for rejecting claim 1 does not apply. Thus, a prima facie obviousness rejection has not been established for claim 6 and the rejection cannot stand.

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However, as noted previously, the Final Office Action cites paragraph [0014] and [0015] of Mercier as teaching "mapping respective communication paths between the central controller and the devices via the one or more appliances as a function of the communication capabilities to obtain an automatic appliance failover to allow diagnostic data to be collected from a selected device by way of multiple appliances". (Final Office Action, page 3). Appellant notes that this language does not appear in claim 6 but will address the citation to Mercier. Again, contrary to the assertion in the Office Action, the paragraphs of Mercier relied upon teach that a data path may contain multiple channels or threads. (Mercier, paragraph [0014]). The data path selection is based upon policies such as, number of threads, number of separate storage switch fabrics that the threads must go through, level of security desired and actions to take based upon security problems detected, performance characteristics and cost characteristics desired. (Mercier, paragraph [0014]).

Mercier does not teach, suggest or make obvious determining which of the plurality of intermediate collectors are capable of communicating with one or more of the plurality of printing devices to obtain a communication map to allow an automatic intermediate collector failover to occur if an intermediate collector fails to operate. Thus, Mercier fails to support the rejection.

Carney does not cure the shortcomings of Mercier. Carney shows in Figure 1 a computer station 106 that is connected to a peripheral device 102 (e.g. a printer). The computer station 106 can collect status information using a single in-memory management application or it can wait and receive notification from the peripheral device (see column 1, lines 45-54). Carney, however, does not discuss automatic intermediate collector failover to occur if an intermediate collector fails to operate. Thus, Carney fails to support the rejection even when combined with Mercier.

Furthermore, there is no teaching or suggestion of determining which of the plurality of intermediate collectors are capable of communicating with one or more of the plurality of

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printing devices to obtain a communication map to allow an automatic intermediate collector failover to occur if an intermediate collector fails to operate as recited in claim 6. As such, the actions performed with respect to the single in-memory management application of Carney are not the same as the actions performed with respect to the plurality of appliances as recited in claim 6. Carney thus fails to cure the shortcomings of Mercier.

Therefore, combining Mercier with Carney still fails to teach or suggest the recited features of claim 6 and fails to establish a prima facie obviousness rejection. The rejection of claim 6 cannot stand and should be reversed. Claim 6, thus, patentably distinguishes over the references and is in condition for allowance. Accordingly, dependent claims 7-11 also patentably distinguish over the references and are in condition for allowance.

Independent claim 20

Claim 20 recites a system comprising a plurality of printing devices and a plurality of appliances where an appliance is a computer configured to collect diagnostic data from one or more of the plurality of printing devices. Claim 20 further recites a controller remote from the appliances being configured to perform an automatic appliance failover to a second appliance using a map of the communication paths if communication with the first appliance fails in order to receive the diagnostic data relating to the selected printing device.

As explained previously, Mercier teaches an apparatus that provides a user interface that allows operators to use pre-created policies for criteria to select data paths that meet organizations uptime and performance requirements. (Mercier, Abstract). Mercier does not disclose I/O adapter failure.

Again, the Final Office Action offers the conclusory statement "Claims 6-11 and 20-23 contain similar limitations as claims 1-5 above, therefore are rejected under the same rationale." (Final Office Action, page 4). Thus, it is not readily apparent what portions of Mercier have been relied upon to specifically support the rejection of independent claim 20. Furthermore since claim 20 recites different limitations from claim 1, the rationale for

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rejecting claim 1 does not apply here. Thus, a prima facie obviousness rejection has not been established for claim 20 and the rejection cannot stand.

As noted previously, the Final Office Action cites paragraph [0014] and [0015] of Mercier as teaching "mapping respective communication paths between the central controller and the devices via the one or more appliances as a function of the communication capabilities to obtain an automatic appliance failover to allow diagnostic data to be collected from a selected device by way of multiple appliances". (Final Office Action, page 3). Appellant notes that this language does not appear in claim 20 but will address the citation to Mercier. Again, contrary to this assertion, the paragraphs of Mercier relied upon teach that a data path may contain multiple channels or threads. (Mercier, paragraph [0014]). The data path selection is based upon policies such as, number of threads, number of separate storage switch fabrics that the threads must go through, level of security desired and actions to take based upon security problems detected, performance characteristics and cost characteristics desired. (Mercier, paragraph [0014]).

Mercier does not teach, suggest or make obvious a controller remote from the appliances being configured to perform an automatic appliance failover to a second appliance using a map of the communication paths if communication with the first appliance fails in order to receive the diagnostic data relating to the selected printing device. Thus, Mercier fails to support the rejection.

Carney does not cure the shortcomings of Mercier. Carney shows in Figure 1 a computer station 106 that is connected to a peripheral device 102 (e.g. a printer). The computer station 106 can collect status information using a single in-memory management application or it can wait and receive notification from the peripheral device (see column 1, lines 45-54). Carney, however, does not discuss automatic intermediate collector failover to occur if an intermediate collector fails to operate. Thus, Carney fails to support the rejection even when combined with Mercier.



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Furthermore, there is no teaching or suggestion of a controller remote from the appliances being configured to perform an automatic appliance failover to a second appliance using a map of the communication paths if communication with the first appliance fails in order to receive the diagnostic data relating to the selected printing device as recited in claim 20. The actions performed with respect to the single in-memory management application of Carney are not the same as the actions performed with respect to the plurality of appliances as recited in claim 20. Carney thus fails to cure the shortcomings of Mercier.

Therefore, the combination of Mercier and Carney still fail to teach or suggest all the features recited in claim 20 and fails to establish a prima facie obviousness rejection. The rejection of claim 20 cannot stand and should be reversed. For at least these reasons, claim 20 patentably distinguishes over the references of record and is in condition for allowance. Accordingly, dependent claims 21-23 also patentably distinguish over the references and are in condition for allowance.

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**II. Whether the level of ordinary skill in the art has been properly ascertained under MPEP §2141.03**

MPEP §2141.03 requires that Office Actions ascertain and describe the level of the hypothetical person of ordinary skill in the art so that objectivity can be maintained. Here the Office Actions neither ascertained nor reported on the level of ordinary skill in the art. Thus, all the rejections are improper and are appealed.

The MPEP requires that the Office Action ascertain and describe the level of ordinary skill so that objectivity can be maintained. MPEP §2141.03 reads:

The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry. *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718, 21 USPQ2d 1053, 1057 (Fed. Cir. 1991). The examiner must ascertain what would have been obvious to one of ordinary skill in the art at the time the invention was made, and not to the inventor, a judge, a layman, those skilled in remote arts, or to geniuses in the art at hand. *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983), cert. denied, 464 U.S. 1043 (1984).

Here the Office Action neither ascertains nor reports on the level of ordinary skill in the art. Since the Examiner maintained Mercier and Carney as analogous art, then the level of ordinary skill in the art should have been clearly ascertained. The skill level has not been ascertained. For this additional reason, the rejections are improper and should be reversed.

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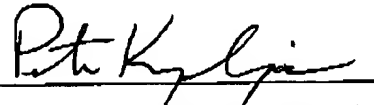
**Conclusion**

For the reasons set forth above, a prima facie obviousness rejection has not been established for any claim. Thus, all rejections are improper and should be reversed. Accordingly, **claims 1-11 and 20-23** patentably and unobviously distinguish over the references of record and are now in condition for allowance. An early allowance of all claims is earnestly solicited.

Respectfully submitted,

Nov. 20, 2006

Date



Peter Kraguljac (Reg. No. 38,520)

(216) 348-5843  
McDonald Hopkins Co., LPA  
600 Superior Avenue, E.  
Cleveland, OH 44114

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### Claims Appendix

1. A method for configuring data communication paths between a central controller and a plurality of printing devices via a plurality of appliances, the method comprising:

ensuring one or more appliances of the plurality of appliances are active where an appliance is a computer remote from the central controller configured to collect diagnostic data from one or more of the plurality of printing devices and to transmit the diagnostic data to the central controller;

for each of the printing devices, determining communication capabilities with the one or more appliances to determine communication paths between the plurality of printing devices and the one or more appliances;

transmitting signals indicative of the communication capabilities to the central controller; and

mapping respective communication paths between the central controller and the printing devices via the one or more appliances as a function of the communication capabilities to obtain an automatic appliance failover to allow diagnostic data to be collected from a selected printing device by way of multiple appliances.

2. The method for configuring data communication paths as set forth in claim 1, further including:

for each of the printing devices, identifying an optimal path between the appliance and the printing device; and

wherein the mapping includes:

mapping the respective communication paths between the central controller and the printing devices as a function of the optimal paths.

3. The method for configuring data communication paths as set forth in claim 2, wherein the identifying includes at least one of:

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determining one of a plurality of paths between a selected appliance and a selected printing device having a least number of hops; and

determining one of a plurality of paths between the selected appliance and the selected printing device achieving a shortest communication time.

4. The method for configuring data communication paths as set forth in claim 1, further including:

for each of the printing devices, determining a second communication capability between a second appliance and the printing device;

transmitting signals indicative of the second communication capabilities to the central controller; and

wherein the mapping includes:

mapping the respective communication paths between the central controller and the printing devices via the first and second appliances as a function of the first and second communication capabilities.

5. The method for configuring data communication paths as set forth in claim 4, wherein the mapping includes:

substantially balancing respective printing device loads across the appliances.

6. A method for gathering diagnostic data, which are associated with a plurality of printing devices, by a central processing unit via a plurality of intermediate collectors that are connected to one or more of the plurality of printing devices through a network, where an intermediate collector is a computer remote from the control processing unit configured to collect diagnostic data from a selected printing device, the method comprising:

determining which of the plurality of intermediate collectors are capable of communicating with one or more of the plurality of printing devices to obtain a communication map to allow an automatic intermediate collector failover to occur if an intermediate collector fails to operate;

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receiving a notification signal within the central processing unit that one of the intermediate collectors is available;

identifying one of the printing devices for which the diagnostic data is desired;

determining whether the identified printing device is capable of communicating with the available intermediate collector;

if the identified printing device is capable of communicating with the available intermediate collector:

transmitting a request signal from the central processing unit to the available intermediate collector requesting the diagnostic data for the identified printing device; and

transmitting signals indicative of the diagnostic data from the identified printing device to the central processing unit via the available intermediate collector.

7. The method for gathering diagnostic data as set forth in claim 6, further including:

determining optimal paths from each of the printing devices to the central processing unit via respective ones of the intermediate collectors; and

wherein the determining whether the identified printing device is capable of communicating with the available intermediate collector includes:

determining whether the identified printing device has an optimal path including the available intermediate collector.

8. The method for gathering diagnostic data as set forth in claim 7, further including:

if the central processing unit has not received the notification signal for a predetermined time that one of the intermediate collectors is available, retrieving the signals indicative of the diagnostic data for the printing devices having the respective optimal paths including the intermediate collector via another one of the intermediate collectors.

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9. The method for gathering diagnostic data as set forth in claim 6, further including:

identifying an additional printing device for which the diagnostic data is desired;

determining whether the additional identified printing device is capable of communicating with the available intermediate collector;

if the identified printing device and the additional identified printing device are capable of communicating with the available intermediate collector:

determining a balanced load for the available intermediate collector to include at least one of the identified printing devices;

transmitting a request signal from the central processing unit to the available intermediate collector requesting the diagnostic data for the balanced load; and

transmitting signals indicative of the diagnostic data from the balanced load to the central processing unit via the available intermediate collector.

10. The method for gathering diagnostic data as set forth in claim 9, wherein the determining the balanced load includes:

determining whether at least one of the identified printing devices is capable of communicating with another one of the intermediate collectors.

11. The method for gathering diagnostic data as set forth in claim 6, further including:

transmitting signals indicative of identifiers of the intermediate collectors and the respective printing devices with which the intermediate identifiers are capable of communicating to the central processing unit; and

wherein the determining whether the identified printing device is capable of communicating with the available intermediate collector includes:

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comparing the identifier of the identified printing device with the identifiers of the printing devices capable of communicating with the available intermediate collector.

12-19. (Canceled).

20. A system comprising:

a plurality of printing devices;

a plurality of appliances where an appliance is a computer configured to collect diagnostic data from one or more of the plurality of printing devices;

a communication network configured to provide a plurality of communication paths between components connected to the communication network;

the plurality of printing devices and the plurality of appliances being connected to the communication network where communication paths are provided between one or more of the plurality of printing devices and one or more of the plurality of appliances;

a controller remote from the appliances configured to communicate with the plurality of appliances and being configured to generate a map of the communication paths between the printing devices and the appliances based on signals received from the plurality of appliances;

the controller being configured to receive, from a first appliance from the plurality of appliances, diagnostic data relating to a selected printing device; and

the controller being configured to perform an automatic appliance failover to a second appliance using the map of the communication paths if the first appliance is disabled in order to receive the diagnostic data relating to the selected printing device.

21. The system of claim 20 further including means for automatically mapping the communication paths based on signals received from the plurality of appliances.



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22. The system of claim 20 further including means for ensuring each of the appliances is active.

23. The system of claim 20 further including means for identifying addresses of the appliances and addresses of the printing devices with which the appliances are capable of communicating.

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**Evidence Appendix**

None. There is no extrinsic evidence.

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**Related Proceedings Appendix**

None. There are no related proceedings.